What is claimed is:

[1]

A gas generator (30) comprising : a metal housing (3) constituted by an initiator shell (1) and a closure shell (2), a combustion chamber (5) which is formed inside the housing (3) and into which gas generants (4) generating a high-temperature gas through combustion are loaded, a filter member (6) disposed around the combustion chamber (5), an igniter (7) mounted into the housing (3) and igniting and burning the gas generants (4) inside the combustion chamber (5) and a plurality of gas discharge openings (8a, 8b) formed on the housing (3) and discharging the gas generated in the combustion chamber (5),

wherein either or both of the initiator shell (1) and the closure shell (2) constituting the housing (3) are provided with semi-spherical or semi-oval end plate portions (14, 10) and cylindrical portions (13, 9) having a diameter D continuously formed from these end plate portions (14, 10), H/D of a ratio of the bottom distance H between the end plate portion (14) of the initiator shell (1) and that (10) of the closure shell (2) to the diameter D of the cylindrical portions (13. 9) is in the range from 0.4 to 1.3 and (A/At) which is a ratio of the total sum (A) of the surface areas of gas generants (4)

to the total sum (At) of the opening areas of the gas discharge openings (8a, 8b) is in excess of 1300 and not more than 2000.

[2]

A gas generator according to Claim 1, wherein the gas discharge openings (8a, 8b) are available in two or more opening diameters.

[3]

A gas generator according to Claim 1, wherein the gas discharge openings (8a, 8b) are disposed in a single array or in a plurality of arrays.

[4]

A gas generator according to Claim 1, wherein the gas discharge openings (8a, 8b) are available in two opening diameters (large and small) and disposed in two arrays in a zigzag form, and D1/D2 which is a ratio of a small opening diameter D1 of the gas discharge opening to a large opening diameter D2 of the gas discharge opening is in the range from 0.1 to 1.0.

[5]

A gas generator according to Claim 4, wherein a distance between gas discharge openings (8a, 8b) d in an axial direction of the housing (3) is related to the small opening diameter D1 and the large opening diameter D2 as follows where the gas

discharge openings (8a, 8b) are disposed in two arrays in a zigzag form.

$$d \geq (D1 + D2) / 2$$

[6]

A gas generator according to Claim 1, wherein the gas discharge openings (8a, 8b) are closed by a rupture member (11) and the rupture member (11) is a metal plate made of aluminum, steel or stainless steel.

[7]

A gas generator according to Claim 6, wherein the rupture member (11) is in the range from 0.01mm to 0.3mm in thickness.

[8]

A gas generator according to Claim 6, wherein the rupture member (11) is provided so as to be different in strength depending on an opening diameter of the gas discharge openings (8a, 8b) and the strength of the rupture member (11) is increased with a decrease in diameter of the gas discharge openings (8a, 8b).

[9]

A gas generator according to Claim 6, wherein with regard to the strength of the rupture member (11) each of which is attached to a plurality of gas discharge openings (8a, 8b) having a different opening diameter, the strength of the rupture member

is adjusted in such a way that T1/T2 = D2/D1 is in the range from 2 to 8 on the assumption of T1/T2 = D2/D1,

where

T1 is the strength of the rupture member which is attached to a gas discharge opening having a small diameter D1,

T2 is the strength of the rupture member which is attached to a gas discharge opening having a large diameter D2.